

Product datasheet for **TA327166**

Vinculin (VCL) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	WB 1:500 - 1:2000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Recombinant protein of human VCL
Formulation:	Store at -20C or -80C. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	vinculin
Database Link:	NP_003364 Entrez Gene 22330 Mouse Entrez Gene 305679 Rat Entrez Gene 7414 Human P18206



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Background:

Vinculin is a cytoskeletal protein that plays an important role in the regulation of focal adhesions and embryonic development. Three structural vinculin domains include an amino-terminal head, a short, flexible proline-rich region and a carboxy-terminal tail. In the inactive state, the head and tail domains of vinculin interact to form a closed conformation. The open and active form of vinculin translocates to focal adhesions where it is thought to be involved in anchoring F-actin to the membrane and regulation of cell migration. Phospholipid binding to the tail domain and subsequent phosphorylation of vinculin at Ser1033 and Ser1045 by PKC- α and Tyr100 and Tyr1065 by Src kinases weakens the head-tail interaction. This change in vinculin allows the binding of a number of other proteins, including talin, α -actinin and paxillin, which disrupts the head-tail interaction and initiates the conformational change from the inactive to active state. Vinculin deficiencies are associated with a decrease in cell adhesion and an increase in cell motility, suggesting a possible role in metastatic growth. This is supported by a recently demonstrated relationship between decreased vinculin expression and increased carcinogenesis and metastasis in colorectal carcinoma.

Synonyms:

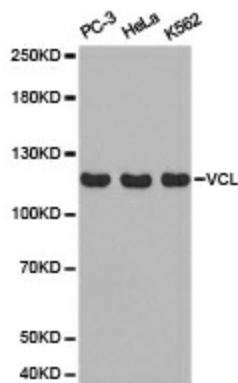
CMD1W; CMH15; HEL114; MV; MVCL

Protein Families:

Druggable Genome

Protein Pathways:

Adherens junction, Focal adhesion, Leukocyte transendothelial migration, Regulation of actin cytoskeleton

Product images:

Western blot analysis of extracts of various cell lines, using VCL antibody.